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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

COLBERT, ELLA

ART UNIT	PAPER NUMBER
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3624

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/419,749

Applicant(s)

DEFFLER ET AL

Examiner

Ella Colbert

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Claims 1-9 are pending in this Response with formal drawings filed 04/28/04.
2. The Objection to Applicants' Specification has been overcome in part by Applicants' amendment to the Specification. However, the Specification still remains objected to for the reasons given here below.
3. The corrected formal drawings submitted 04/28/04 have been reviewed and were not acceptable for the reason(s) given here below.
4. The 35 U.S.C. 112 second rejection still remains for the reason(s) given here below.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1, 3, and 9 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. How the keyword registry is built dynamically is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976). Applicants' Specification does not say the keyword registry/repository is being built dynamically. The Specification merely reads on page 4 "... a mechanism for dynamically registering new macro commands in a registry is also provided for allowing for extensibility. To register new macro commands, ... in the registry for execution by the extensible macro language." This is interpreted as merely "dynamically registering

the macro commands". There is nothing reading the "keyword registry or repository is built dynamically" or how the "keyword registry or repository is built dynamically".

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1, 3, and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 has steps left out of the claim language. Claim 1, line 3, does not say who or what is "analyzing a macro language expression". Claims 5 and 7 have a similar problem. Is the computer or a program or a user "analyzing the macro language expression"? Line 11, reads "executing the code,". This claim limitation is very vague and unclear. Do Applicants' mean "executing the code of instructions to run the extended macro command"?

Claims 1, 3, 4, 7, 8, and 9 recites the limitation "registry of keywords" in claims 1, 5, 7, and 9 and claims 3, 4, and 8 recite "keyword repository". There is insufficient antecedent basis for this limitation in the claims. The claim limitations appear not to be in agreement. It is unclear whether the "registry of keywords" and the "keyword repository" mean the same or they are different. Clarification in the claim language is respectfully requested.

Specification

9. The Specification is objected to because Page 4, line 8 reads "... shortcomings of the prior art:". This line would be better read "... shortcomings of the prior art: of". Page 10, line 17 reads "... (Figure 1 104) comprising". This line would be better read "... shortcomings of the prior art: of". Page 10, line 17 reads "... (Figure 1 (104)) comprising". Page 11, line 9 reads "embodiment, the macro ...: procedures" and line 13 reads "... variable". These lines would be better read "embodiment, the macro ...: procedures" and line 13 "... variable; or". Page 14, line 9 reads "...fails. The following examples illustrate". This line would be better read "...fails. The following examples illustrate a". Page 15, lines 15 and 21 read "... subobjects 204b, 204c ...". These lines would be better read "... sub-objects 204b and 204c ...".

The Specification references Figure 1, element "106" as "Macro language expression 106" and the drawing references element "106" as "{PROPERTY {NAME} LIKES PIZZA". Figure 2, elements "204" and "114" are not mentioned in the Specification in reference to figure 2. The figure elements and description in the specification and the drawings are not in agreement. Correction is required. See MPEP § 608.01(b).

Claim Objections

10. Claims 1, 3, 5, 7, 8, and 9 are objected to because of the following informalities: Claim 1, lines 10 and 11 read "... to include the extended macro command; and executing the code,". These lines would be better read "... to include the extended macro command; executing the code; and ". Claim 3, line 8, page 2 and line 8, page 3;

claim 5, lines 8 and 11; claim 7, lines 9 and 11; claim 8, line 8, page 4 and line 2, page 5; and claim 9, lines 11 and 13 have a similar problem. Appropriate correction is required.

Abstract

11. The abstract of the disclosure is objected to because the format for the "Abstract" should read "ABSTRACT" and not "ABSTRACT OF THE INVENTION".

- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aho, Alfred; Sethi, Ravi; and Ullman, Jeffery D., hereafter Aho in view of Peter Hyde, hereafter Hyde in view of (US 5,295,059) Brooks et al, hereafter Brooks and further in view of (US 5,742,828) Canady et al, hereafter Canady.

With respect to claim 1, Aho teaches, analyzing a macro language expression (page 6, sec. 1.2, lines 1-6), determining based on predetermined syntax of a macro language, one or more keywords in the analyzed macro language expression (page 6, sec. 1.2, lines 7-25, page 7, lines 1-21, page 12, sec. 1.3, lines 1-25, and page 13), the keyword representing an extended macro command initially unknown to the macro language (page 183, Sec. 4.4, paragraph 1), and executing the code (page 16, Sec. 1.4, lines 1-39, page 17, Sec. 1.4, lines 1-20). Aho failed to teach, wherein the extended macro command is executed without recompiling the macro language. However, this step is well known in the art and performed at runtime and it is not a recompilation but it is a copy as many times as it (the macro) is called. There are three different types of macros, such as preprocessor, compiler, and runtime. A preprocessor macro is defined as for example, the C preprocessor is a macro processor that is used automatically by the C compiler to transform the program before actual compilation; compiler macros are defined as controlling the state of the macro with compiler command options; and a runtime macro is defined as tells the runtime intercept how to identify the construct to converted differently and how to render or convert it to the alternative result which usually results in runtime macros that are executed by conversion code at runtime. Hyde teaches, wherein the extended macro command is executed without recompiling the macro language page 9, paragraph 1 – page 10, paragraph 8. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the extended macro command executed without recompiling the macro language and to modify in Aho because such a modification would allow Aho to have a direct benefit of using the macros and components to keep the HTML separate from the logic and major changes can often be made –remotely or directly on the server – without even shutting down the Web application. Aho failed to

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teach, retrieving an executable code associated with the keyword from a registry of keywords, the registry of keywords being built dynamically to include the extended macro command. It would have been obvious at the time the invention was made to one having ordinary skill in the art of keywords to retrieve an executable code associated with the keyword from a registry of keywords, the registry of keywords being built dynamically to include the extended macro command and in view of Aho's teaching of keywords in the macro language on page 183, Sec. 4.4, lines 7-14 to incorporate in Aho a registry of keywords because it is well known in the art that the C language itself has a registry of 33 keywords with the keywords being used in the source code and compiling of the macro language.

With respect to claim 2, Aho teaches, extending the registry of keywords by inserting a new keyword representing a new macro command and a code associated with the new keyword (page 212, Sec. 4.6, paragraphs 1 and 2). A registry of keywords because it is well known in the art that the C language itself has a registry of 33 keywords with the keywords being used in the source code and compiling of the macro language, *supra*.

With respect to claims 3, Aho teaches, a parser having a predefined syntax determining one or more extended keywords embedded within a macro language expression, the extended keyword representing a newly extended command initially unknown to a macro language (page 7, Sec. 1.2, lines 22-31, pages 40-47, page 48, Sec. 2.4, paragraphs 1 and 2, and page 283, paragraphs 3 and 4). It is well known in the art of programming that by definition a macro expands or is extended and is compiled initially at runtime.

Aho failed to teach, a keyword repository having one or more keywords and one or more associated codes and a macro handler coupled to the parser for receiving an extended keyword from the parser, the macro handler in response to the received extended keyword, retrieving a code of instructions associated with the received extended keyword from the keyword repository, the keyword repository being built dynamically to include the extended command and executing the code of instructions to run the extended command represented by the extended keyword. Canady teaches, a keyword repository having one or more keywords and one or more associated codes (col. 5, lines 51-63) and Brooks teaches, a macro handler coupled to the parser for receiving an extended keyword from the parser, the macro handler in response to the received extended keyword, retrieving a code of instructions associated with the received extended keyword from the keyword repository, the keyword repository being built dynamically to include the extended command and executing the code of instructions to run the extended command represented by the extended keyword 9col. 8, lines 3-68 and col. 9, lines 1-60). It would have been obvious at the time the invention was made to a person having ordinary skill in the art of extended keywords to have a parser and code associated with the extended keywords and to incorporate in Aho's because such a modification is well known in the art and would enhance Aho's extended keywords with the parser receiving the keyword first, then parsing the expression and the macro handler in response saving the previous contents of the processor registers (keywords) during execution of the main program with the user

selecting the functions and submitting the macro command to run the code associated with the keywords with a prefix symbol.

With respect to claim 4, Aho teaches, a keyword repository augmented to include one or more new keywords and one or more associated codes (page 193, Sec. 4.4, paragraph 3).

With respect to independent claim 5, this claim is rejected on grounds corresponding to the reason given above for rejected independent claim 1. Applicant's claim 5 has a method for parsing a macro language expression with steps corresponding to the method in rejected claim 1.

With respect to claim 6, Aho teaches, wherein the code includes machine operable instructions (page 128, Sec. 3.7, paragraph 3.8 and page 129 –page 130, paragraph 1).

With respect to claim 7, this independent claim is rejected on grounds corresponding to the reason given above for rejected independent claim 1. Applicant's claim 7 has a method for providing extensible macro language with steps corresponding to the method in rejected claim 1.

With respect to claim 8, this independent claim is rejected on grounds corresponding to the reason given above for rejected independent claim 3. Applicant's claim 8 has a system for providing an extensible macro language with steps corresponding to the system in rejected claim 3.

With respect to claim 9, this independent claim is rejected on grounds corresponding to the reason given for rejected independent claims 1 and 7. Applicant's

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claim 9 has a program storage device readable by a machine ... to perform method steps of extending a macro language with steps corresponding to the method of claims 1 and 7.

Response to Arguments

14. Applicants' arguments with respect to claims 1-9 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure.

De Hita et al (US 6,081,774) disclosed a database of keywords and a dictionary of syntactic information.

Arbouzov (US 5,701,487) disclosed software macro calls.

Smith (US 5,855,014) disclosed keyword and workflow databases.

Inquiries

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ella Colbert whose telephone number is 703-308-7064. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vincent Millin can be reached on 703-308-1038. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



E. Colbert
July 24, 2004